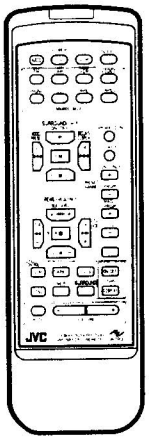
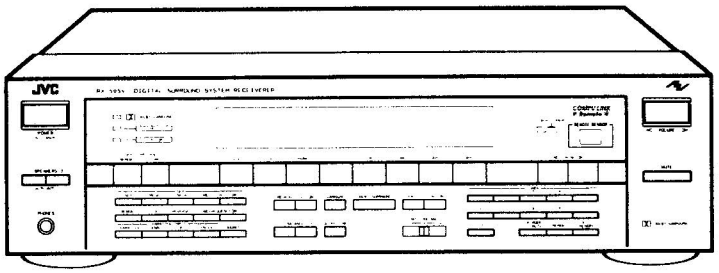
JVC

DIGITAL SURROUND SYSTEM RECEIVER

MODEL No. RX-504VBK/RX-504VLBK RX-505VTN/RX-505VLTN





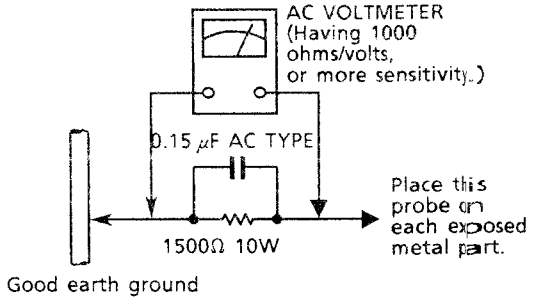
COMPU LINK
Remote
Control Component

Note: RX-504VBK/RX-504VLBK and RX-505VTN/RX-505VLTN are competely same in their structure, except for their outlook colours.

No. 20220
Jan. 1991

Safety Precautions

1. The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the Parts List in the Service Manual. The use of a substitute repalcement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage currnet check (Electrical shock hazard testing)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, contorl shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
   Do not use a line isolation transformer during this check.
   - Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularily any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).
   - Alternate check method
     Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500Ω 10 W resistor paralleled by a 0.15 μF AC-type capacitor between an exposed metal part and a known good earth ground.
     Measure the AC voltage across the resistor with the AC voltmeter.
     Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and meausre the AC voltage across the resistor.
     Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

Specifications

AMPLIFIER SECTION

Output power
(CD IN → SP. OUT) :**(For the U.S.A. and Canada)**
80 watts per channel, min. RMS, both channels driven into 8 ohms from 20 Hz to 20 kHz, with no more than 0.03% total harmonic distortion.
(For other areas)
70 watts per channel, min. RMS, both channels driven, into 8 ohms from 20Hz to 20kHz, with no more than 0.03% total harmonic distortion.
70 wattes per channel, min. RMS, both channels driven, into 8 ohms at 1kHz(DIN).

Rear channels 20 wattes channel, min. RMS, into 8 ohms at 1kHz, with no more than 0.7% total harmonic distortion.

Intermodulation distortion : 0.03% at 80 watts

Input sensitivity / impedance
- PHONO : 2.5mV / 47k ohms
- TAPE 1 PLAY,CD : 200mV / 33k ohms
- TAPE 2 PLAY,VIDEO
- VCR PLAY

Recording output level : 200mV

Frequency response
- PHONO
- (RIAA equalization) : 20 Hz — 20kHz ±0.5dB
- TAPE 1 PLAY, CD : 10 Hz — 30kHz ±1dB
- TAPE 2 PLAY, VIDEO
- VCR PLAY

Signal-to-noise ratio
- PHONO : 71dB ('66IHF)
  78 dB ('78 IHF, REC OUT)
  66 dB (DIN)
- TAPE 1 PLAY, TAPE2 PLAY, CD VIDEO VCR PLAY : 91 dB ('66IHF), 85 dB ('78 IHF) 67dB (DIN)

S. E. A. graphic equalizer
- Center frequencies : 63Hz, 160Hz, 400Hz, 1kHz, 2.5kHz, 6.3kHz, 16kHz
- Control range : ±10dB

Tone controls
- BASS : ±8dB (100Hz)
- TREBLE : ±8dB (10kHz)

FM TUNER SECTION (IHF)

Tuning range : 87.5 MHz — 108.0 MHz
Usable sensitivity : Mono 10.8 dBf (0.95μV / 75 ohms)
50 dB quieting sensitivity : Mono 16.3dBf (1.8μV / 75 ohms) Stereo 38.3 dBf (22.5 μV / 75 ohms)
Signal-to-noise ratio (IHF-A net, at 85dBf) : Mono 80 dB Stereo 73 dB
Total harmonic distortion (1 kHz) : Mono 0.15% Stereo 0.2%
Frequency response : 30Hz — 15kHz , (+0.5 dB, -3 dB)
Capture ratio (at 85 dBf) : 1.5 dB
Alternate channel selectivity : 60 dB (± 400kHz)
IF response ratio : 85dB (at 98 MHz)
Stereo separation : 40 dB (at 1 kHz)

AM TUNER SECTION

MW

Tuning range

Area	Channel space	
	9kHz	10kHz
U.S.A. Canada	—	530kHz~1710kHz
Continental Europe, U.K.	522kHz~1629kHz	—
Italy	522kHz~1629kHz	—
Australia	522kHz~1629kHz	—
Other Area	531kHz~1602kHz	530kHz~1600kHz

Sensitivity
- Loop antenna : 300 μV / m*
- External antenna : 30 μV*

Signal-to-noise ratio : 50 dB* (100mV / m)
Selectivity : 25 dB* (±9kHz, ±10 kHz)

LW (RX-504L / 505L)

Tuning range

Area	Channel Space (1kHz)
U.S.A. Canada	—
Continental Europe, U.K.	144kHz~353kHz
Italy	144kHz~290kHz
Australia	—
Other Area	—

Sensitivity
- Loop antenna : 600μV / m at 245kHz
- External antenna : 100μV at 245kHz

Signal-to-noise ratio (100 mV / m) : 50dB at 245kHz
Selectivity : 32dB ±9kHz at 245kHz

VIDEO SECTION

Output signal level (VCR REC, MONITOR OUT) : 1 V_{p-p} (at 1 V_{p-p} input)
Impedance : 75 ohms, unbalanced
Synchronization : Negative
Signal-to-noise ratio : 45dB
Crosstalk : 45dB (3.58MHz)

GENERAL

Dimensions (W × H × D) : 17-3 / 16" × 5" × 13" (435 × 127 × 329 mm)
Weight : 21.6 lbs. (9.8 kg)

* Measured at 1,000 kHz or 999kHz

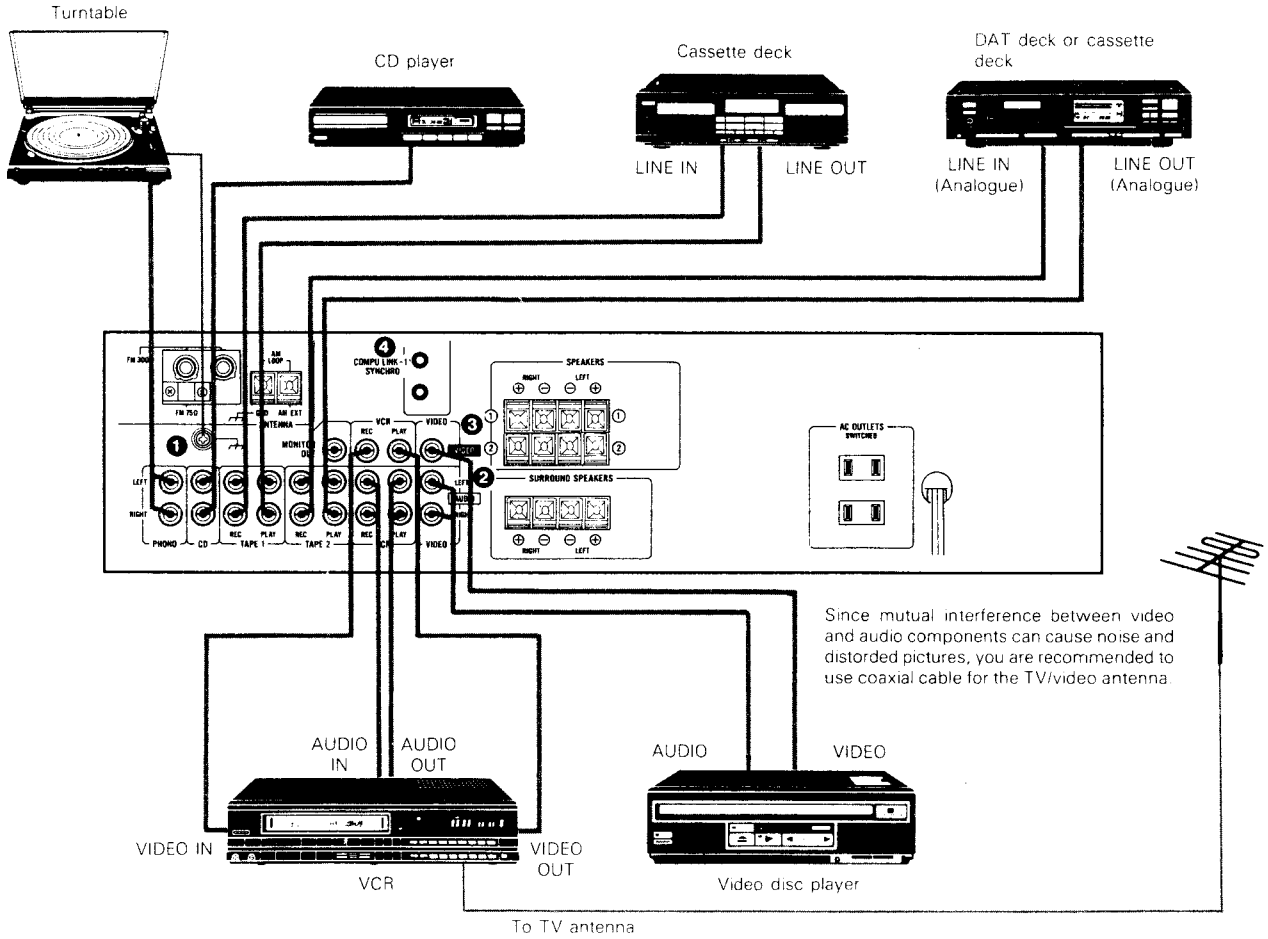
Design and specifications subject to change without notice.

POWER SPECIFICATIONS

Area	Line Voltage & Frequency	Power Consumption
U.S.A. Canada	AC120V~, 60Hz	230 watts, 310 VA
Continental Europe	AC230V~, 50Hz	10 watts
U.K. Australia	AC240V~, 50Hz	170 watts
Other Area	AC110/127/220/240V~ ,selectable, 50/60Hz	10 watts

Source Component Connections

Switch the power off when connecting any cables.



❶ GND
❷ AUDIO terminals (PHONO, CD, TAPE 1, TAPE 2, VCR, VIDEO)
❸ VIDEO terminals (VCR, VIDEO)
❹ COMPU LINK-1/SYNCHRO terminals
Connect to JVC components provided with COMPU LINK-1/SYNCHRO terminals for the COMPU LINK control system function.

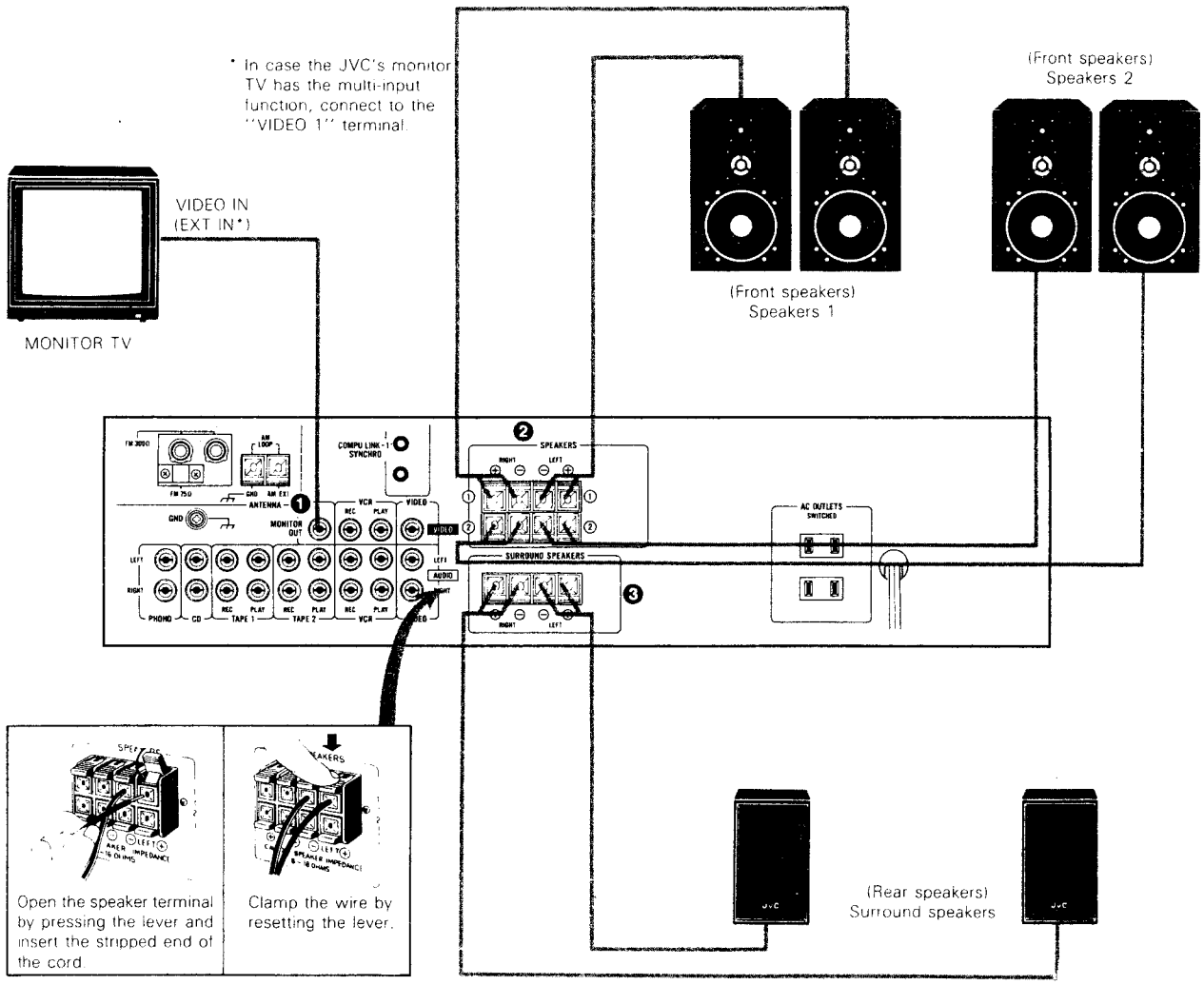
COMPU LINK
Remote
Control System

COMPU LINK is a computer-linked system by which individual JVC audio and/or video components are controlled via a computer. For further details, see page 16.

Notes:

- When connecting components, connect their left and right channels correctly. If channels are reversed, the stereo effect will be degraded.
- The AC OUTLETS do not supply power when the power switch is turned off. Do not connect equipment requiring more than the outlet's rated value.
- Do not connect the remote cable when connecting the JVC cassette deck having COMPU LINK-1/SYNCHRO terminals to the TAPE 2 terminals.
- When a JVC DAT deck having COMPU LINK-1/SYNCHRO terminals is used, be sure to connect it to the TAPE 2 terminals and also connect the remote cable.
- Connect a turntables using a moving magnetic (MM) type cartridges to the PHONO terminals.

Monitor Component Connections


* In case the JVC's monitor TV has the multi-input function, connect to the "VIDEO 1" terminal.
VIDEO IN (EXT IN*)
MONITOR TV
(Front speakers) Speakers 2
(Front speakers) Speakers 1
SPEAKERS
SURROUND SPEAKERS
AC OUTLETS SWITCHED
(Rear speakers) Surround speakers
Open the speaker terminal by pressing the lever and insert the stripped end of the cord.
Clamp the wire by resetting the lever.

❶ MONITOR OUT terminal
❷ SPEAKERS 1, 2 terminals
❸ SURROUND SPEAKERS terminals.

Notes:

- Connect speakers with the correct polarity: (+) to (+) and (−) to (−). Reversed polarity will degrade the stereo effect. Be careful to prevent adjacent speaker wires from touching each other.
- Use speakers with the correct impedance. The correct impedance is indicated on the rear panel of the receiver.
- When using surround speakers, be sure to connect both the right and left speakers, connecting only one speaker will not generate sound.

Antennas

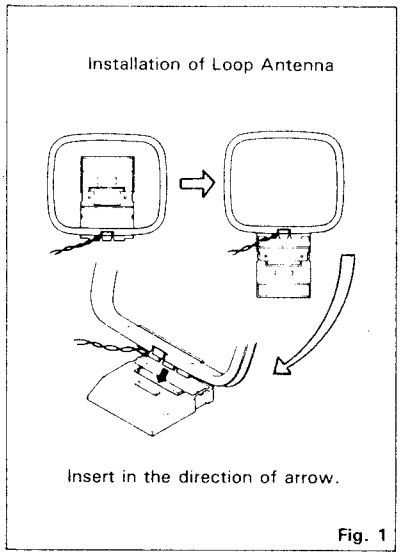


Fig. 1

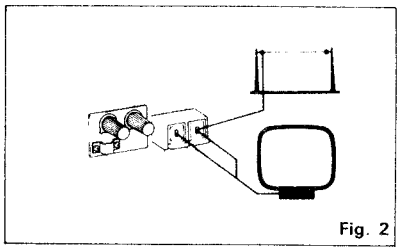


Fig. 2

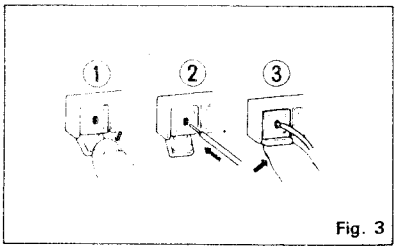


Fig. 3

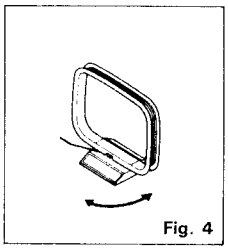


Fig. 4

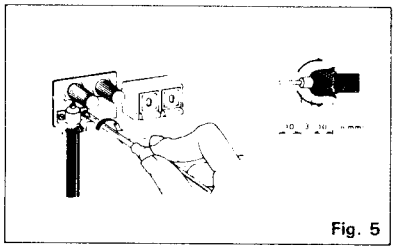


Fig. 5

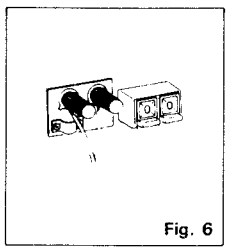


Fig. 6

AM antennas

Figure 1: How to assemble the AM loop antenna

Figure 2: AM loop antenna

This antenna is for the reception of local AM broadcasts.

Figure 2: AM external antenna

If AM reception is unsatisfactory, connect an external AM antenna (single-wire antenna) to the AM EXT terminal

Figure 3: Connection of AM antenna

① Open antenna terminals levers.
② Plug cords into the terminals.
③ Close the levers.

Figure 4: Noise and interference

Change the direction of the loop antenna, or re-install it in a better position if the reception is noisy.

Notes:

- If the provided loop antenna is not connected or an uninsulated antenna wire touches the rear panel, it will be impossible to receive AM broadcasts.
- When installing an external AM antenna, leave the AM loop antenna connected.

FM antennas

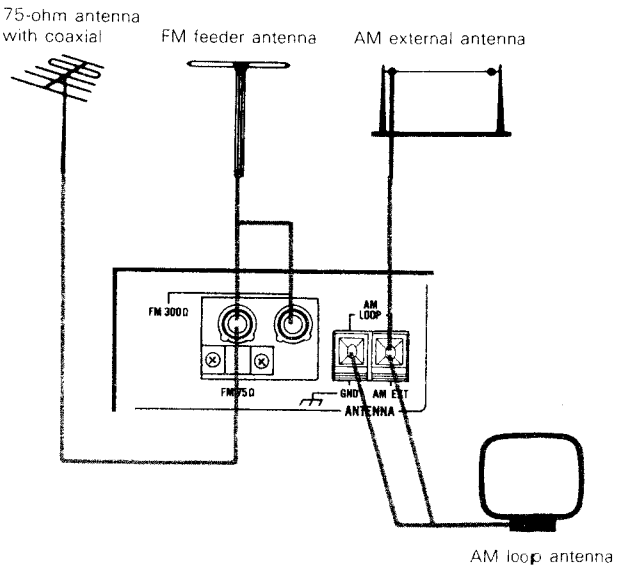
Figure 5: 75-ohm FM antenna with coaxial

Loosen the screws on the bracket and insert the cable through the ring from below. Connect the stripped core to the upper terminal then tighten the ring. The ring is the antenna ground.

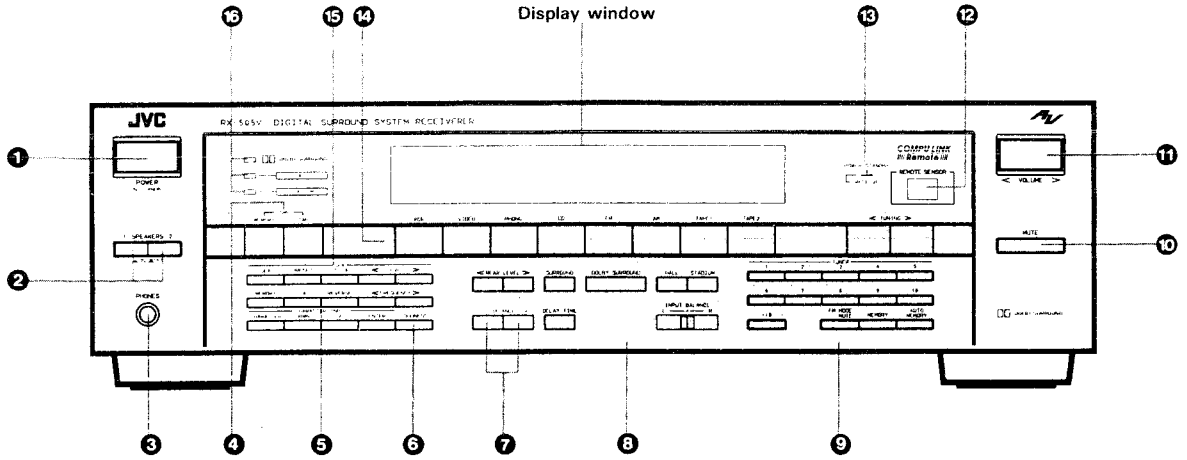
Figure 6: FM Feeder antenna

Connect to the FM 300 Ω terminal. Make sure the feeder antenna wires do not touch any other terminals.

Antenna Connections



Front Panel



❶ POWER (ON/STANDBY)
Press this button to turn the power ON. Press again to turn the power off and activate the STANDBY mode. The STANDBY indicator will light.
A small amount of power (5 watts) is consumed in the STANDBY mode. To turn the power off completely, disconnect the power cord from the wall outlet. Preset data is retained in memory while the power cord is plugged into the wall outlet. If the power cord is disconnected or a power failure occurs, data is retained for two or three days.

❷ SPEAKERS 1, 2
Turns speakers 1 and 2 ON or OFF.

❸ PHONES
Plug headphones into this jack. If you want to hear from the headphones alone, turn OFF speakers 1 and 2.

❹ CSRP
COMPU LINK SOURCE RELATED PRESET SYSTEM feature
CSRP: Turns the CSRP feature ON or OFF.
MEMORY: Stores CSRP data in memory.

❺ CHARACTER INPUT
Use the following keys to assign titles or other data to the S.E.A. patterns or to TUNER channels you have preset.
- **CHARACTER**
- **ENTER**
- **DOWN, UP**

For details, see "Entering Characters"

❻ LOUDNESS
Turns LOUDNESS ON or OFF. The ON position makes up for loss of the human auditory sensation when the sound volume is low.

❼ BALANCE L, R
Adjusts the volume balance between the left and right speakers.

❽ DIGITAL SURROUND
Use these keys when you playback with a surround sound effect.
- **REAR LEVEL**
- **DELAY TIME**
- **SURROUND**
- **INPUT BALANCE**
- **HALL, STADIUM**
- **DOLBY SURROUND**

❾ TUNER
Use the following keys to listen to AM or FM broadcasts:
- **MEMORY**
- **TUNING <, >**
- **AUTO MEMORY**
- **1 – 10, +10 (Tuner numeric keys)**
- **FM MODE/MUTE**

For details, see "Listening to AM or FM broadcasts"

❿ MUTE
Turns sound ON or OFF temporarily.

⓫ VOLUME < , >
Adjusts the volume of sound from the speakers or headphones.

⓬ REMOTE SENSOR
Receives signals from the remote control unit.

⓭ RECEIVED and POWER STANDBY indicator
Lights when signals are received from the remote control unit or when the machine is in the STANDBY mode.

⓮ SOURCE
Use the following keys to select to select sources:
- **VCR**
- **VIDEO**
- **PHONO**
- **CD**
- **FM**
- **AM**
- **TAPE 1**
- **TAPE 2**

(alternates between ON and OFF)

⓯ SEA
Use the following keys for the S.E.A. Graphic Equalizer:
- **SEA**
- **MEMORY**
- **FLAT**
- **PRESET**
- **REVERSE**
- **LEVEL < , >**
- **DISPLAY**
- **FREQUENCY < , >**

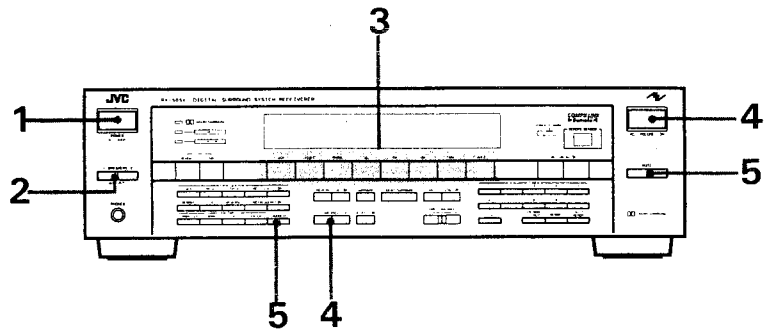
For details, see "Using the S.E.A. graphic equalizer"

⓰ Surround mode indicator
Shows the surround mode selected.

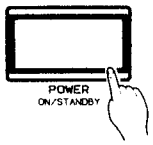
Basic Operation

— Before Operating —

Before plugging the power cord into an AC outlet, check to be sure the individual components are connected correctly.



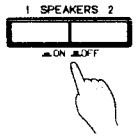
1. Turn the POWER to ON.



The display window lights up.

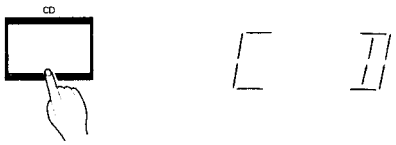
Note:
If a malfunction occurs when the power is ON; unplug the power cord and then plug it in again.

2. Select a speaker system by pressing one of the SPEAKERS keys.

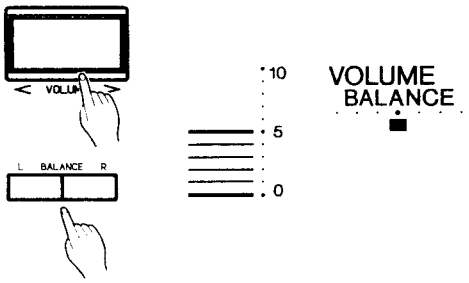


Note:
If speakers are not connected to both SPEAKERS 1 and 2 terminals, do not turn ON both speaker systems as that would suppress sound output.

3. Press one of the SOURCE keys for the desired source.



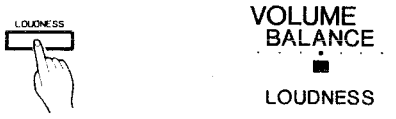
4. Adjust the VOLUME and BALANCE keys to your taste.



Note:
These keys vary their settings while they are being pressed. The display normally shows VOLUME. It will change to BALANCE for about 5 seconds when the BALANCE keys are pressed.

5. Press the LOUDNESS and MUTE keys as needed.

- Press to make up for loss of the human auditory sensation when the sound volume is low.

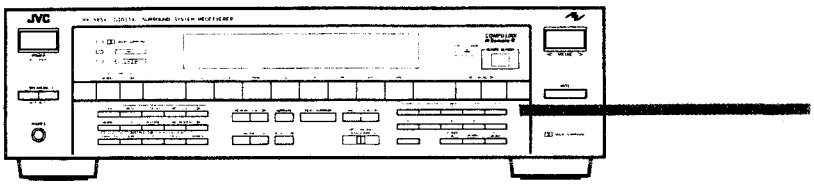


- Press to temporarily cancel sound output.

To release it press the MUTE key again.

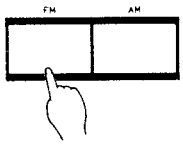
Note:
The MUTE key is reset when the VOLUME or BALANCE keys are pressed.

Listening to AM or FM Broadcasts

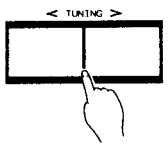


■ Selecting a Station

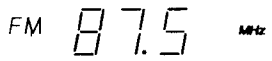
1. Press the AM or FM key.



2. Use the TUNING keys to find a station.

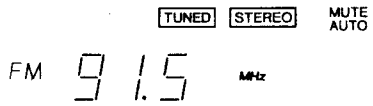


Each time the TUNING keys are pressed, the frequency is varied in steps of 10 kHz for AM and 0.1 MHz for FM. The setting will vary continuously while the keys are pressed and held.



Auto-tuning starts when the TUNING keys are released and stops when a station is tuned. To halt auto-tuning, press a TUNING key.

3. The TUNED indicator will light when a station is tuned in correctly.



Adjust the antenna if the indicator does not light.

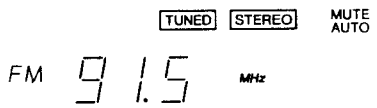
- While tuning in an FM station, press the FM MODE/MUTE key to light the MUTE/AUTO indicator, this cuts out inter station noise while tuning.
- The STEREO indicator will light when an FM stereo station is tuned in correctly.

If the FM stereo station is weak and noisy, press the FM MODE/MUTE key again to turn off the MUTE/AUTO indicator to improve reception (broadcast becomes monaural).

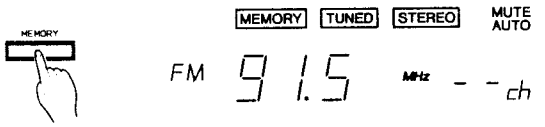
■ Presetting Stations

You can preset a total of 40 AM and FM station (CH 1 through CH 40).

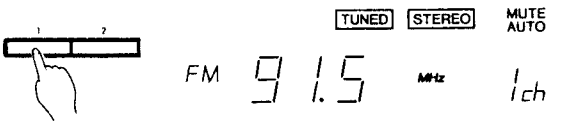
1. Tune in the desired station with the TUNING keys.



2. Press the MEMORY key to light its indicator.

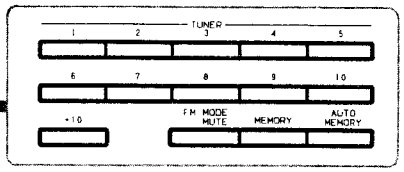


3. Enter the channel number with numeric keys while the indicator is on (for about 5 seconds).



- If the indicator turns off before you enter the channel number, press the MEMORY key again.

4. Repeat this procedure to preset other channels.

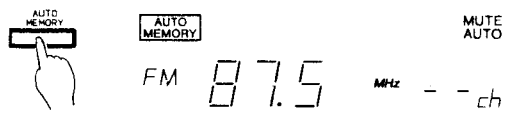


■ AUTO MEMORY

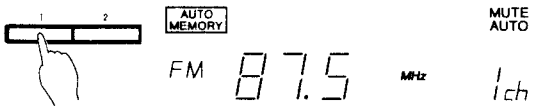
The auto-memory feature scans frequencies upward and presets stations as they are tuned, in ascending channel number order.

1. Using the TUNING keys, select the frequency from which you want auto-memory to start (the lower-limit frequency).

2. Press the AUTO MEMORY key to light its indicator.



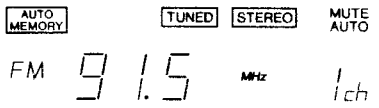
Enter the starting channel number with the numeric keys while the indicator is on (about 5 seconds).



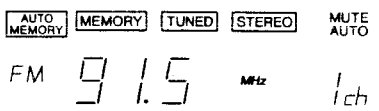
- If the indicator turns off before you enter the channel number, press the AUTO MEMORY key again.

3. The auto-memory feature starts scanning frequencies upward.

The TUNED indicator will light when a station is tuned, with the channel number blinking (for about 5 seconds).



4. The presetting is complete when the MEMORY indicator is lit.

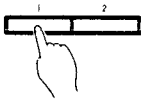


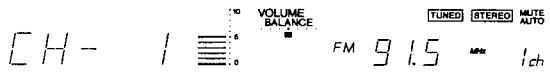
This continues until the upper-limit frequency is reached or all 40 channels are filled.

Note:
If you do not want to preset a station, resume scanning by pressing the AUTO MEMORY key while the channel number is blinking. To halt the auto-memory feature, press any TUNER key other than the AUTO MEMORY key.

■ Recalling preset channels

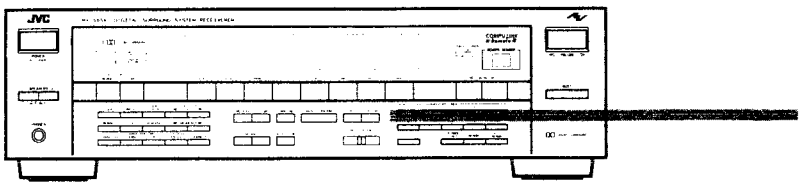
1. Press numeric keys to select a preset chanel.





- To indicate numbers 1 through 10, simply press the appropriate keys.
  To indicate numbers over 10, press the appropriate combination of keys.
  Examples;
  To indicate 17, press "+10", then "7".
  To indicate 20, press "+10", then "10".
  To indicate 26, press "+10" twice, then "6".
  To indicate 40, press "+10" three times, then "10".

Playing Back with a Surround-sound Effect



The soundtracks of the video software bearing DOLBY SURROUND mark includes the same encoded surround information as found in the Dolby Stereo films.
As the RX-505VBK incorporates a Dolby Surround decoder circuit, you can get the Dolby Stereo theatre's ambience and effect, when watching these video sources at home.

SURROUND MODE

There are three surround modes.

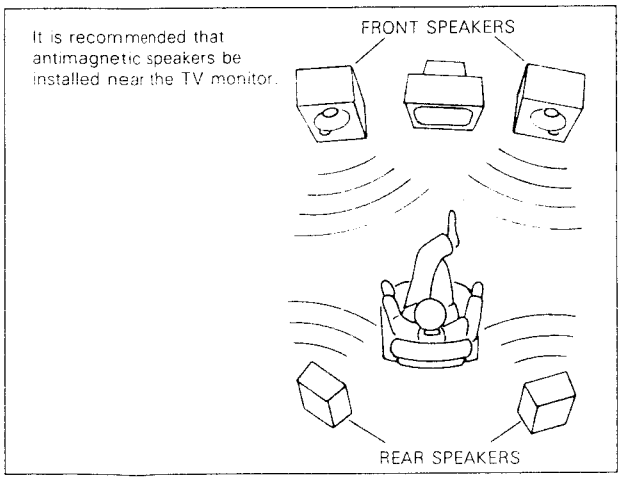
DOLBY SURROUND: This mode produces a live three-dimensional acousitc effect when playing back a program source encoded with Dolby Surround.

HALL: Produces the expanding surround sound effect such as you would experience in a music hall.

STADIUM: Provides the powerful dynamic surround sound effect of stadium music.

- Select DOLBY SURROUND when you use video software with the DOLBY SURROUND mark.
  For ordinary stereo sources use HALL or STADIUM.

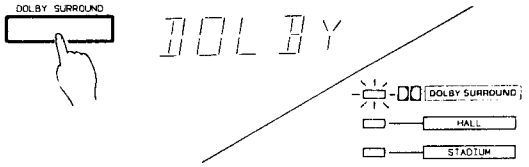
SPEAKER LAYOUT EXAMPLE



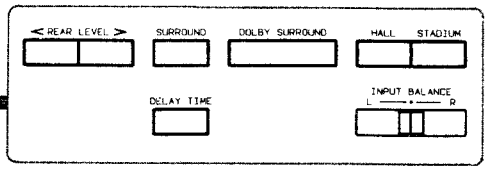
1. Set the SURROUND key to ON.

2. Select the Surround mode: DOLBY SURROUND, HALL, or STADIUM.

< If you select "DOLBY SURROUND" >



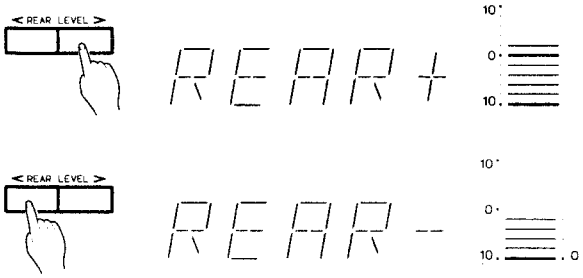
3. Play back the source.



■ Adjustment

Make the following adjustment to get maximum out of the surround sound effect:

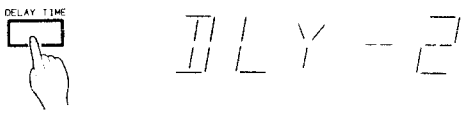
1. Set the output level of the rear speakers using the REAR LEVEL keys.



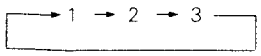
- The REAR LEVEL helps balance the sound with respect to the front speakers. Select the setting you prefer as you listen to the source.

Note:
The front and rear sound on Dolby Surround video software is already balanced for you. Therefore, to enjoy the most natural sound with the Dolby Surround Sound effect, do not raise the REAR LEVEL excessively.

2. Set the delay time for the rear speaker sound with respect to the front speaker sound using the DELAY TIME key.



Each time you press the key, the delay time changes in the following order:



Setting advice:
Compare the distances between the front speakers and the listener and the rear speakers and the listener.
If the position of the rear speakers, compared to the front speakers, is .....

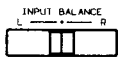
very far ——→ set 1
about the same ——→ set 2
very close ——→ set 3

Note:
The DELAY TIME is stored in each mode until you make another change.

INPUT BALANCE:
Depending on the source, you may not be able to enjoy the full effects of DOLBY SURROUND. In this case you must adjust the input signal balance using the INPUT BALANE knob.

1. Play back a video source (videotape, videodisc, TV broadcast) encoded with Dolby Surround.

2. Making sure that you are in the Dolby Surround mode, carefully adjust the INPUT BALANCE knob so that during monaural sections of the video source (dialog is good for this purpose) any sounds coming from the rear speakers are reduced to a minimum.

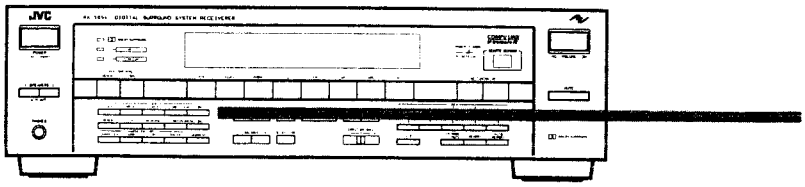


Note:
You may opt to place the control in the center click stop position for a nominal setting for most program material.

DOLBY SURROUND DOLBY SURROUND

- Manufactured under license from Dolby Laboratories Licensing Corporation. Additionally licensed under one or more of the following patents: U.S. Numbers 3,632,886, 3,746,792 and 3,959,590; Canadian Numbers 1,004,603 and 1,037,877. "DOLBY" and double D symbol are trademarks of Dolby Laboratories Licensing Corporation.

Using the S.E.A. Graphic Equalizer



The S.E.A. Graphic Equalizer breaks down the audible frequency range into seven bands. Each band of tones can be adjusted as dis-ired by the listener. Thus allowing you to make the necessary adjustments in the presicely appropriate frequency bands.

***You can customize the sound to your taste.**

***You can correct subtle frequency to suit the acoustic characteristics of your listening room.**

***You can compensate for the conditions of audio equipment.**

S.E.A. preset patterns

A total of 10 preset patterns can be used: 5 programmed preset patterns, and 5 manual patterns which you create (SEA-A through E).

— Programmed preset pattern features —

HEAVY:
For music with a heavy beat.

CLEAR:
For crisp, clear sound with transparent highs.

SOFT:
For background music, at low volume level.

MOVIE:
For TV, VCR, and videodisc sound.

VOCAL:
For music that is chiefly vocal, or speech.

- After recalling these pattern, you can further change each frequency band to suit yourself. However, since they are representative patterns, the original, stored pattern will be unchanged.

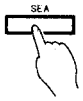
Preset Pattern Frequency Responses (Unit: dB)

Frequency band / Preset pattern	63Hz	160Hz	400Hz	1kHz	2.5kHz	6.3kHz	16kHz
HEAVY	+10	+2	−2	0	0	+2	+4
CLEAR	+4	−4	0	+4	+2	+4	+6
SOFT	+2	0	0	0	0	−2	−6
MOVIE	+6	+2	0	0	−2	0	+2
VOCAL	−2	−2	+2	+4	+2	0	+2
SEA-A							
SEA-B							
SEA-C							
SEA-D							
SEA-E							

Note: To assign titles to the preset patterns, see "Entering Characters".

■ Recalling a preset pattern

1. Press the SEA key.



SEA [ON]

2. Call a preset pattern with the PRESET keys.

SEA [ON]
F ... HEAVY
PRESET

Display shows the title of recalled pattern.

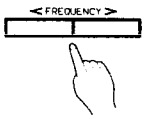
Order

[SEA-A]—[SEA-B]—[SEA-C]—[SEA-D]
[SEA-E]—[HEAVY:F]—[CLEAR:G]
[SOFT:H]—[MOVIE:I]—[VOCAL:J]

■ Creating an S.E.A. pattern

1. Press the SEA key.

2. Press the FREQUENCY keys to call the desired frequency.

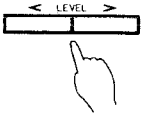


SEA [ON]
PRESET
+10
0
−10

Order

[63Hz]—[160Hz]—[400Hz]—[1kHz]
[2.5kHz]—[6.3kHz]—[16kHz]

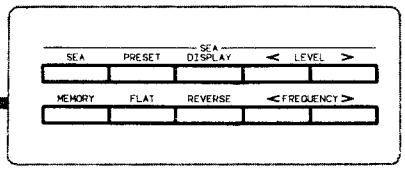
3. Press the LEVEL keys to adjust the S.E.A. level.



SEA [ON]
PRESET
+10
0
−10

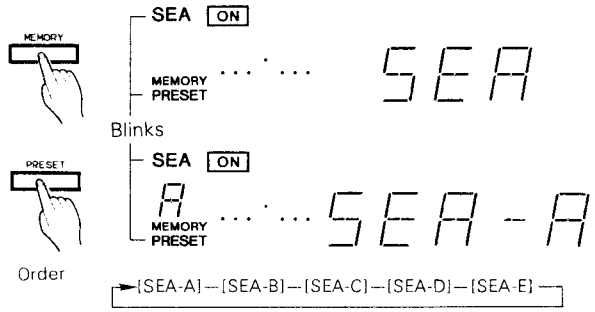
Repeat Step 1 ~ 3 for each additional frequency desired.

Note:
When a frequency has been called, press the LEVEL keys while the frequency is displayed (about 3 seconds). If the display is cleared before you press the LEVEL keys, it can be recalled by pressing either FREQUENCY key.



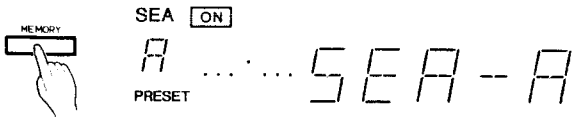
■ Presetting Manual Patterns

1. Create an S.E.A. pattern to preset as instructed in "Creating an S.E.A. pattern".
2. Press MEMORY key to light its indicator. Call one of the patterns to store (SEA-A through E) by pressing the PRESET keys while the indicator is on (about 5 seconds).



Note:
Press the MEMORY key again if the indicator turns off before you press the PRESET keys.

3. Press the MEMORY key again while the indicator is on (about 5 seconds). Memory presetting is complete when the MEMORY indicator turns off.

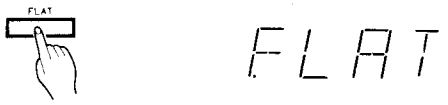


The preset SEA patterns can each be given a five-character title. See the section "Entering Characters" for futher details.

- The SEA key enable you to compare the sound corrected by S.E.A. with the original (not corrected) sound during procedure creating S.E.A. pattern. Pressing the SEA key to turn the S.E.A. OFF offers you the sound not corrected. When press SEA key again the S.E.A. pattern being created could be recalled, and corrected sound would be heard.

S.E.A. recording
The sound corrected by S.E.A. can be recorded on the tape deck connected to the TAPE 1 and VCR terminals.

- To flatten the SEA characteristics



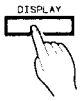
Pressing the FLAT key while a pattern is yet to be preset will clear it. Be careful not to press the FLAT key inadvertently.

- To reverse the porality of the S.E.A. characteristics

The S.E.A. pattern is displayed in ascending frequency order

Press again to return to the original polarity.

- To confirm the current S.E.A. setting



The S.E.A. pattern is displayed in ascending frequency

Frequency band responses

63 Hz: Raise to emphasize the very low base response of organs, drums, and contrabass. When de-emphasized, eliminated unclear response at low frequencies.

160 Hz: Emphasize to obtain a more expanded low sound. De-emphasize to eliminate unclear sound caused by large or nearly empty listening rooms.

400 Hz: This frequency range is the base on which music is constructed. Emphasize to put real punch in your music.

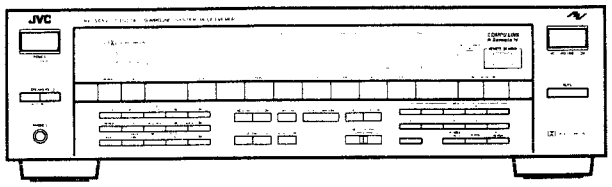
1 kHz: Most effective in emphasizing or de-emphasizing the human voice.

2.5 kHz: The human hearing is most sensitive to this freuqncy. If the music sounds hard or metallic, de-emphasize it.

6.3 kHz: This frequency band varies the tonal expression, influencing the subtleties of the music.

16 kHz: Boosting this frequency range suitably adds to the delicacy of highs, with cymbals and triangles resounding in a more ear-pleasing manner, and provides a feeling of extension.

Recording

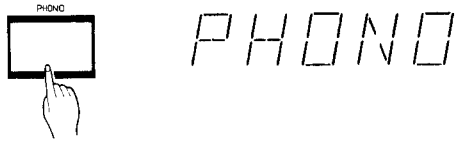


■ Recording

1. Press the SOURCE key for the desired source.

2. Operate the corresponding source equipment.

<If you select PHONO>



Turntable and tape deck can be operated.

Notes:
The surround sound is recorded as a normal stereo sound even if it is recorded with the SURROUND key is ON.

■ Three-Head Tape Decks

If you have a three-head tape deck, you can use it to monitor the sound being recorded. Connect the tape deck to the TAPE 2 terminals and proceed as follows:

1. Start recording the source onto the TAPE 2 deck.

When the TAPE 2 MONITOR indicator is off, you hear the sound of the source playing through the speakers.

2. Press the TAPE 2 key.

Now you hear the sound of the recording immediately as it is made on the tape.

- By pressing the TAPE 2 key on and off, you can compare the sound quality of the source with the quality of the tape recording being made.

Note:
Set the recording level from the tape deck. It can not be set with the VOLUME control of this machine.

■ Dubbing Tapes

Connect one tape deck to the TAPE 1 terminals, the other tape deck to the TAPE 2 terminals.

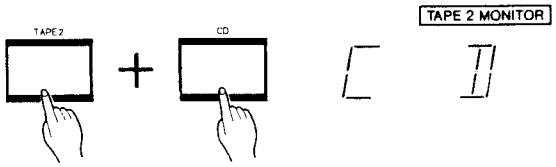
<To record from TAPE 1 to TAPE 2>

1. Press the TAPE 1 key.

2. Play back the TAPE 1 deck and record with the TAPE 2 deck.

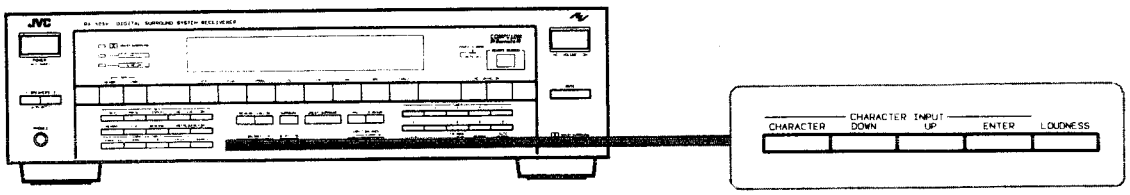
<To record from TAPE 2 to TAPE 1>

1. Press the TAPE 2 key and a SOURCE key other than TAPE 1.



2. Play back the TAPE 2 deck and record with the TAPE 1 deck.

Entering Characters

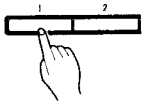


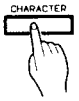
You can name the S.E.A. manual preset patterns (SEA A to E) and the TUNER preset channels (CH 1 to 20) as you wish. Up to five characters can be entered for SEA, four for TUNER.

1. Specify a S.E.A. manual preset pattern or a TUNER preset channel, then press the CHARACTER key.

<To specify a S.E.A. pattern>
Use the S.E.A. PRESET keys.

<To specify a Tuner Preset Channel>
Use the numeric keys.



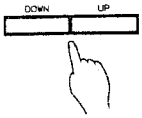


Blinks

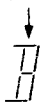
The cursor at the left blinks.
If a character has already been entered, the character blinks.

Note:
When a preset S.E.A. pattern has been called, press the CHARACTER key while the pattern is displayed (about 3 seconds). If the display is cleared before you press the CHARACTER key, press either PRESET key.

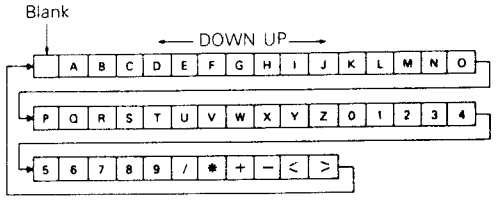
2. Select the appropriate characters with the UP and DOWN keys.



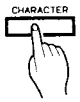
Blinks



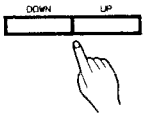
Alphanumeric character order.



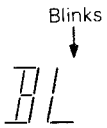
3. Press the CHARACTER key to move to the next position. Repeat steps 2 and 3.



Blinks

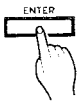


Blinks

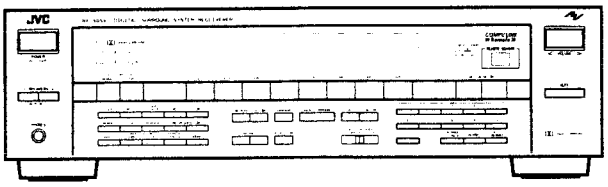


- To alter the characters, move the blinking cursor to the desired character for correction using the CHARACTER key.

4. When the entry is complete, press the ENTER key to store it in memory.



Running the CSRP (Compu Link Source Related Preset System) Feature



CSRP is the state-of-the-art electronic feature that presets volume, balance, and other control settings. This feature lets you invoke preset control settings by simply pressing a SOURCE keys without repeating many settings each time sources are changed.

The following controls can be preset on each SOURCE key (except TAPE 2):

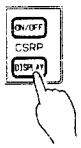
- VOLUME
- BALANCE
- LOUDNESS ON/OFF
- SEA ON/OFF
- S.E.A. preset pattern
- SURROUND ON/OFF
- SURROUND MODE
- SURROUND DELAY TIME
- SURROUND REAR LEVEL

When the CSRP key is turned ON or when the power is switched on with the CSRP key ON, the display will show the data settings on the currently selected SOURCE key in sequence with the indicator blinking rapidly. The blinking indicator changes to a continuously lit state when the display is complete. Subsequently, a similar display occurs each time an additional source is selected.

Note:
Sources can be preset regardless of whether the CSRP key is ON or OFF, but when a source is to be preset with the CSRP key OFF, do not turn it ON until the presetting is complete. If the CSRP key were turned ON before the presetting is complete, the current data settings would be recalled to override the presetting in progress.

To confirm the settings presetted in the current source

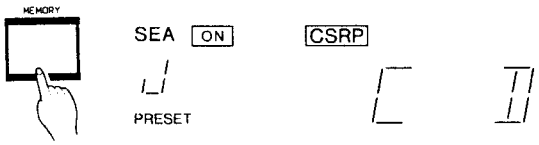
Press the CSRP DISPLAY button on the remote control unit. This operation does not turn on or off CSRP.



Presetting Procedure

- Before proceding, set the preset state.

1. Press the MEMORY key to blink its indicator.



2. Press the SOURCE key for the source to be preset (VCR, VIDEO, PHONO, CD, FM, AM, or TAPE 1) while the indicator is blinking (about 5 seconds).

When the presetting is complete, the display will show preset data in the following order with the indicator blinking rapidly:

VOLUME, BALANCE, LOUDNESS ON/OFF → SEA (ON/OFF, preset pattern) → SURROUND (ON/OFF, MODE, DELAY TIME, REAR LEVEL)

Note:
Press the MEMORY key again if the indicator stops blinking before you press a SOURCE key.
Even with the SEA key ON, the SEA PRESET indicator will blink when the MEMORY key is pressed if an S.E.A. preset pattern has not been previously selected. In this case, select an S.E.A. preset pattern and retry this operation.

- Repeat this operation for each additional source to be preset.

COMPU LINK Remote Control System

JVC's exclusive "COMPU LINK" remote control system connects equipment with JVC COMPU LINK-1/SYNCHRO terminals to the remote control system. The equipment can be controlled from the remote control unit, or other functions (such as automatic source selection and synchronized recording) can be used.

■ Automatic source selection

Pressing SOURCE keys will automatically put the corresponding source equipment into the PLAY mode. When the PLAY key on source equipment is pressed, the corresponding SOURCE key is automatically set to that source. Other source equipment shuts down about 5 seconds later.

■ Synchronized recording

Synchronized recording permits a tape deck to start recording automatically in synchronism with a CD player or turntable. Set the tape deck in the REC/PAUSE mode and press the PLAY key on the CD player or turntable. The tape deck will enter the recording mode automatically, starting synchronized recording.
Synchronized recording stops automatically after the CD player or turntable has stopped and the tape deck has entered the REC/MUTE mode for about 4 seconds. For details, refer to the tape deck instructions.

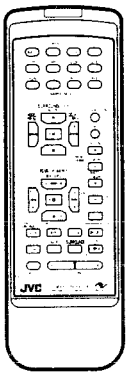
COMPU LINK
Remote
Control System

Notes:

- COMPU LINK remote control does not work on the tape deck connected to the TAPE 2 terminals.
  If you connect a tape deck to the TAPE 2 terminals, disconnect the remote control cable.
- If the power for any connected equipment is shut off during synchronized recording, the system will not operate properly. In this case, you must start all over again.
- During synchronized recording the SOURCE key will lock in either the CD or PHONO position. This is to prevent you from accidentally stopping the recording or changing to any other source. To change to another source you must first stop synchronized recording.
- If you program track numbers on a CD player or CD atuo-changer and use synchronized recording, a blank space about 4 seconds long will be left between recordings. This permits music scanning.

Inserting Batteries in the Remote Control Unit

The RM-SR505U remote control unit require two size AAA (1.5 V) batteries.

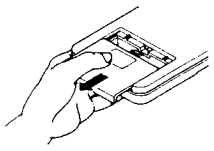


Important Notes About Batteries

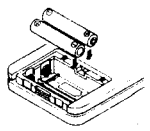
- If the range of the remote control unit seems shortened, the batteries may be old. Try inserting new batteries.
- Observe the polarity of the batteries when loading them.
- Do not use one new battery with one old batteries.
- Be sure to use batteries of the same brand. Batteries may vary in voltage even through they look alike.
- If the remote control unit will not be used for a long time, remove the batteries.

CAUTION:
Do not heat batteries or attempt to dispose of them by burning.

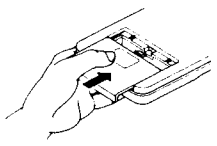
1. Remove the rear cover of the remote control unit by pressing down gently while sliding it out.



2. Insert the batteries, making sure that their position matches that of the diagram inside the remote.



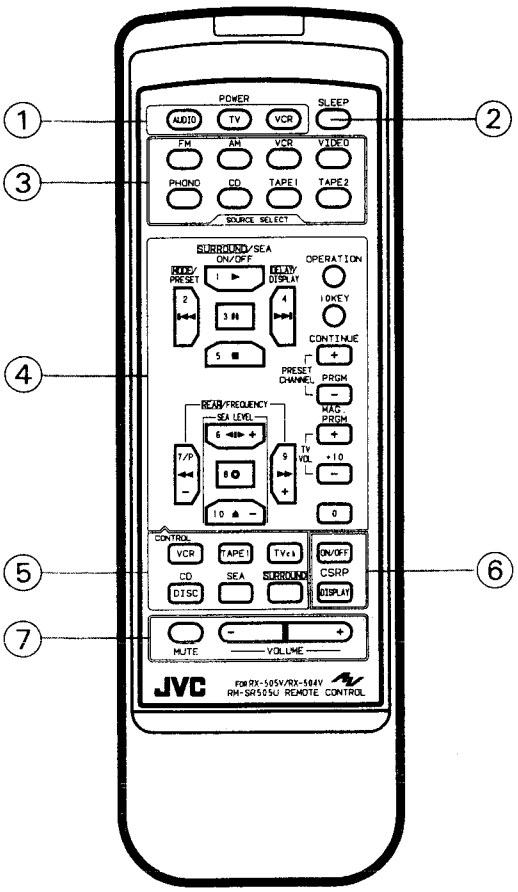
3. Replace the rear cover.



Operation with the Remote Control Unit

Aim the signals at the REMOTE SENSOR on the receiver.

- Aim the remote control unti at a video equipment to use (such as TV, VCR).



- The remote control unit provided control the receiver and JVC's audio visual gear from a remote place via the Compu Link Remote Control System.
- Direct the transmitter window of the remote control unit at target equipment within a distance of 7 meters. Take care to avoid obstacles between the transmitter and the target. Press keys slowly and positively, making sure the desired functions result.
- The key markings on the transmitter may not match those on the equipment. Check the markings.
  The remote contrl unit cannot control equipment functions they do not support. Older equipment may not be receptive to their input.
- Check for connection of the COMPU LINK-1/SYNCHRO terminals on the remote equipment by a remote cable.
- The operation of each key on the remote control unit is clearly displayed on the receiver.
  For specific procedures, refer to the instructions for the particular equipment.
- Switch on the power to all the equipment required before starting operation. The POWER key on the remote control unit can switch on the power to the AUDIO receiver, TV and VCR.

■ Name of Parts and Their Functions

① **POWER**
AUDIO: Press to change the power for the receiver ON or STANDBY.
TV: Press to turn on or off the power to JVC's TV receiver.
VCR: Press to turn on or off the power to JVC's VCR.

② **SLEEP**
Use this control when you want to set the SLEEP TIMER.

③ **SOURCE SELECT**
Press to change the source selected for input to the receiver. Different functions are assigned to the Selectable Function keys depending on the source.

④ **Selectable Function keys**
These keys function in the mode selected with SOURCE SELECT keys or Function Mode Select keys.

⑤ **Function Mode Select**
Press to select the equipment you wish to operate.
Different functions are assigned to the Selectable Function keys depending on the equipment.
Pressing these buttons does not change the source selected for input to the receiver.

⑥ **CSRP**
ON/OFF: Turns CSRP ON or OFF.
DISPLAY: Use to display the CSRP setting.

⑦ **VOLUME (–, +)**
Press to adjust the output sound level.
MUTE
Press to turn the output sound ON or OFF temporarily.

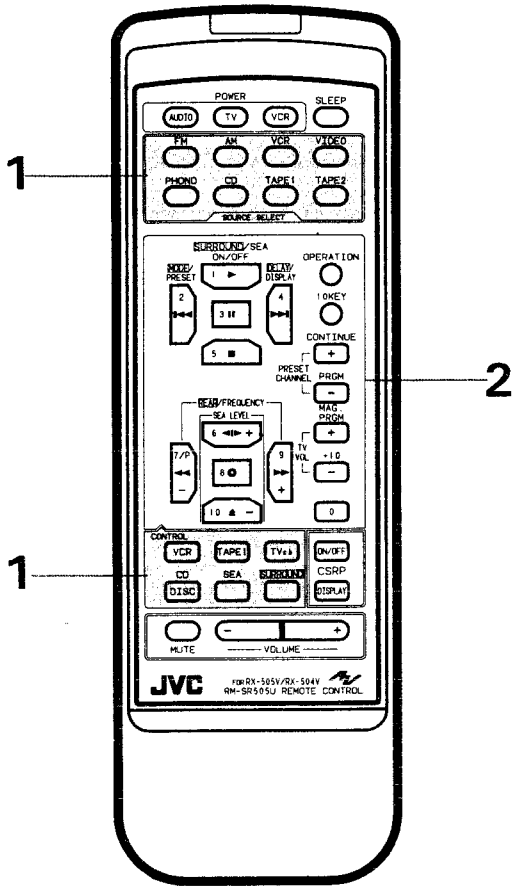
■ How to use the Selectable Function keys

Basic Operation

1. Select the function mode with the Function Mode Select keys or SOURCE SELECT keys.

- SOURCE SELECT keys also change the source input to the receiver.
- Use a Function Mode Select key (VCR or TAPE 1) to operate an equipment while you are listening to the sound of another source, for example, to have a tape deck standby while playing a CD.

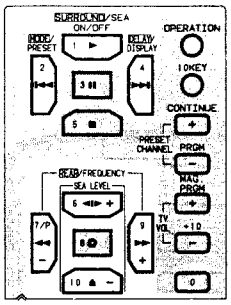
2. Use the Function Mode Select keys.



— Operating the S.E.A. graphic equalizer

1. Press the SEA key of the Function Mode Select keys.

2. Use the Selectable Function keys.

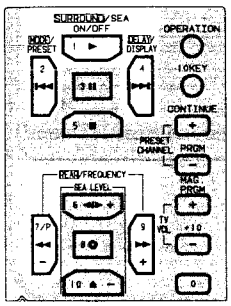


SEA ON/OFF:	Turn the S.E.A. ON or OFF.
PRESET:	Calls an S.E.A. preset pattern.
DISPLAY:	Displays current S.E.A. setting.
FREQUENCY:	Calls a frequency band to correct.
SEA LEVEL:	Sets an S.E.A. level.

— Operating the surround sound effect

1. Press the SURROUND key of the function Mode Select keys.

2. Use the Selectable Function keys.



SURROUND	ON/OFF	: Turns the surround sound effect ON/OFF.
MODE		: Selects the surround mode.
DELAY		: Sets the delay time for the surround channel.
REAR		: Sets the output level of the surround channel.

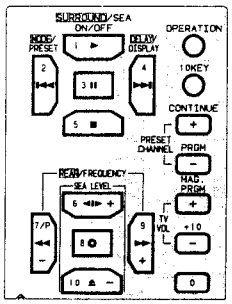
– Operating the source unit

If the source has two modes (OPERATION mode and 10 KEY mode), use the OPERATION key and 10 KEY key to switch the mode.
- The functions of the numeric keys (1 ~ 10, +10, 0) may vary according to the unit you operate.
  Be sure to read the instructions for each unit.

FM/AM broadcast

1. Press the FM or AM key of the SOURCE SELECT keys.

2. Use the Selectable Function keys.



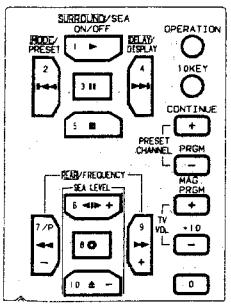
1 ~ 10, +10 : Select the preset channel.
PRESET CHANNEL
+ : Scans to higher preset channels.
– : Scans to lower preset channels.

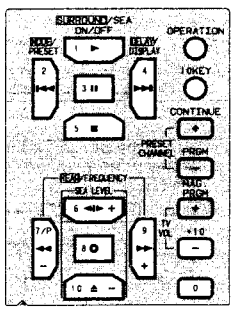
CD

1. Press the CD key of the SOURCE SELECT keys.

2. Use the Selectable Function keys.

< OPERATION mode > < 10 KEY mode >





< OPERATION mode >

▶ : Starts play.
■ : Stops operation.
⏮ : Skips to the beginning of the previous track.
⏭ : Skips to the beginning of the next track.
⏸ : Stops play temporarily. To release it, press ▶
◀◀ : Moves backward quickly during play.
▶▶ : Moves forward quickly during play.
⏏ : Move the disc tray in and out.

< 10 KEY mode >

1 ~ 10, +10, 0 : Select the track number.

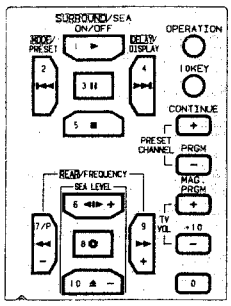
• When the source is switched, the OPERATION mode is selected first.

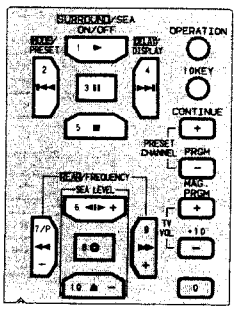
CD Auto-changer

1. Press the CD DISC key of the Function Select keys.

2. Use the Selectable Function keys.

< OPERATION mode > < 10 KEY mode >





< 10 KEY mode >

1 ~ 6, 7/P : Select the disc number.
CONTINUE : Use for continuous play.
PRGM : Use for programmed play.
MAG PRGM : Use for magazine program play.

< OPERATION mode >

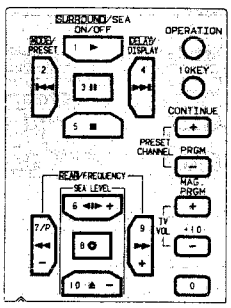
▶ : Starts play.
■ : Stops operation.
⏮ : Skips to the beginning of the previous track.
⏭ : Skips to the beginning of the next track.
⏸ : Stops play temporarily. To release it, press ▶
◀◀ : Moves backward quickly during play.
▶▶ : Moves forward quickly during play.

• When the function is switched, the 10 KEY mode is selected first.

Turntable

1. Press the PHONO key of the SOURCE SELECT keys.

2. Use the Selectable Function keys.

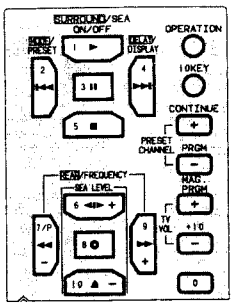


▶ : Starts play.
■ : Stops play.

Cassette Deck (TAPE 1)

1. Press the TAPE 1 key of the SOURCE SELECT or Function Select keys.

2. Use the Selectable Function keys.



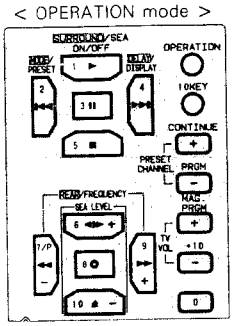
▶ : Starts playback.
■ : Stops operation.
⏮ : Skips to the beginning of the previous tune.
⏭ : Skips to the beginning of the next tune.
❚❚ : Stops playback/recording temporarily.
To release it, press ▶ .
◀❚▶ : Change the tape running direction.
◀◀ : Fast winds the tape from right to left.
▶▶ : Fast winds the tape from left to right.
○ : Press together with ▶ to start recording.
Press together with ❚❚ to enter record-pause mode.

VCR

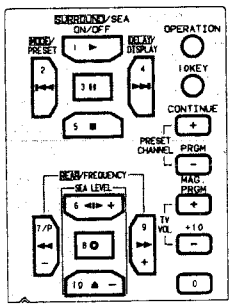
1. Press the VCR key of the SOURCE SELECT or Function Select keys.

2. Use the Selectable Function keys.

< OPERATION mode >



< 10 KEY mode >



< OPERATION mode >

▶ : Starts playback.
■ : Stops operation.
❚❚ : Stops playback/recording temporarily and enters the pause/still mode. To release it, press ▶
◀◀ : Rewinds video tape.
▶▶ : Fast-forwards video tape.
○ : Press together with ▶ to start recording.
Press together with ❚❚ to enter record-standby mode.

< 10 KEY mode >

1 ~ 9, 0 : Selects the VCR channel.
\+ : Scans to higher channels.
– : Scans to lower channels.

When the source or the function is switched, OPERATION mode is selected first.

Cassette deck (TAPE 2) or VIDEO

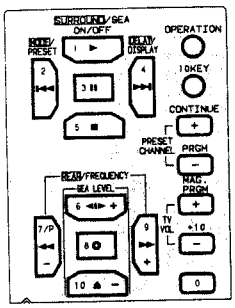
1. Press the TAPE 2 or VIDEO key of the SOURCE SELECT keys.

2. A cassette deck connected to the TAPE 2 terminal and a video disc player cannot be operated with the remote control unit. Use the switches or buttons on the apparatus.

— Operating the TV

1. Press the TV ch key of the Function Select keys.

2. Use the Selectable Function keys.

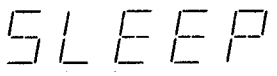


1 ~ 9.0 : Selects the TV channel.
\+ : Scans to higher channels.
– : Scans to lower channels.
TV VOL : Adjusts the sound volume of TV.

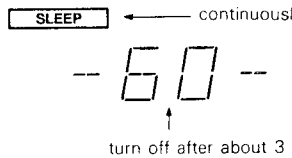
— Using the SLEEP timer

The sleep timer shuts off the receiver (to enter the STANDBY mode) when the preset time intervals have elapsed.

1. Press the SLEEP TIMER key to set the timer setting mode.



2. Each time the SLEEP TIMER key is pressed subsequently, the timer can be set up to 80 minutes, in 10-minute multiples.



3. After the minute display turns off, press the SLEEP TIMER key once more to display the remaining time in minutes.

Troubleshooting

Problem	Possible Cause	Solutions
Receiver does not play; Indicators do not light up.	Power cord not plugged in.	Plug Power cord into an AC outlet.
No sound from the speakers.	Speaker wires not connected properly.	Check speaker wiring. Reconnect if needed.
	SPEAKERS keys not set correctly.	Press the SPEAKERS keys in or out as desired.
Sound from one speaker only.	Speaker wires not connected properly.	Check speaker wiring. Reconnect if needed.
	Balance Control may be set to one extreme.	Adjust Balance Control so both speakers have sound.
No sound from the surround speakers.	Speaker wires not connected properly.	Check speaker wiring. Reconnect if needed. When using surround speakers, be sure to connect both the right and left speakers.
Continuous hiss or buzzing during FM reception.	Incoming signal may be too weak.	Adjust antenna.
		Station may be too far away to receive.
	Incorrect antenna used.	Check with your dealer to make sure you are using the correct type of antenna.
	Antenna not connected properly.	Make sure all antennas are properly connected.
Occasional cracking noise during FM reception.	Ignition noise from automobiles.	Move the antenna further away from the road.
Loud hum during record playing.	Turntable not connected properly.	Check the turntable manual. Ground the turntable if required.
	Interference from other electrical appliances.	Try moving the power cord or plugging into a different outlet.
Howling during record playing.	Turntable too close to a speaker.	Move speakers away from the turntable.